

### Abstract of the Disclosure

An apparatus and method for direct measurement of the channel state of a receiver, such as an OFDM (Orthogonal Frequency Division Multiplexing) receiver. The apparatus adapts a frequency selective channel using a squared Euclidean distance between a received signal value and a de-mapped value for measurement of the channel state and estimates the CSI (Channel State Information) which is also suitable for signal processing with co-channel interference. The estimated CSI may be used in a bit metric calculation of subsequent error correction decoders, such as a Viterbi decoder, to increase system SNR (Signal-to-Noise Ratio) gain. Because receiving equipment, such as digital televisions, receive clearer DVB-T (Terrestrial Digital Video Broadcasting) signals, clearer pictures with less distortion can be displayed, for example, on the digital television.